UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 05/05/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.

1940 DUKE STREET ALEXANDRIA, VA 22314 EXAMINER CHAWAN, SHEELA C

ART UNIT PAPER NUMBER

2624 DATE MAILED: 05/05/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | | |
|--|-------------|----------------------|---------------------|------------------|--|--|--|
| 10/642,760 | 08/19/2003 | Hideo Tsuchiya | 241713US2SRD | 3731 | | | |
| TITLE OF INVENTION; PATTERN INSPECTION APPARATUS | | | | | | | |

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 08/05/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat | ed below or directed ou | for transmit ng the Pater herwise in I | tting the ISS nt, advance of Block 1, by (| UE FEE and PUBLIC orders and notification (a) specifying a new of | orres | pondence address; | and/or | (b) indicating a sepa | hould be completed where correspondence address as trate "FEE ADDRESS" for |
|---|--|---|--|---|---|--|--|--|---|
| CURRENT CORRESPONDE | ENCE ADDRESS (Note: Use Bi | lock I for any cl | hange of address) | , | Feet | s) Transmittal. Thi | s certifi | icate cannot be used f | r domestic mailings of the or any other accompanying nt or formal drawing, must |
| 22850 | | 5/2008 | | | | | | | |
| OBLON, SPIV 1940 DUKE STI ALEXANDRIA | AK, MCCLELLA REET , VA 22314 | AND MA | AIER & N | IEUSTADT, P.C | I her State addr trans | Cer by certify that the Se Postal Service we sessed to the Mail mitted to the USP | tificate is Fec(s vith suff Stop 1 FO (57) | of Mailing or Trans:) Transmittal is being ficient postage for firs ISSUE FEE address () 273-2885, on the d | mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below. |
| | | | | | | | | | (Depositor's name) |
| | | | | | | | | | (Signature) |
| | | | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | | FIRST NAMED INVEN | TOR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/642,760 | 08/19/2003 | | | Hideo Tsuchiya | | | 2- | 41713US2SRD | 3731 |
| TITLE OF INVENTION | : PATTERN INSPECTI | ON APPAR | RATUS | | | | | | |
| APPLN. TYPE | SMALL ENTITY | ISSUE | FEE DUE | PUBLICATION FEE I | OUE | PREV. PAID ISSUE | SFEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | S | I440 | \$300 | | \$0 | | \$1740 | 08/05/2008 |
| EXAM | INER | ART | I UNIT | CLASS-SUBCLASS | 3 | | | | |
| CHAWAN, | SHEELA C | 2 | 2624 | 382-144000 | | | | | |
| "Fee Address" indi PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A | ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignce is ident h in 37 CFR 3.11. Comp | unge of Corr "Indication ned. Use of: A TO BE Pl | respondence form a Customer RINTED ON | (I) the names of a or agents OR, alte (2) the name of a registered attorney 2 registered paten listed, no name wi | ap to rnativ single or attor II be or typ he pe g an : | e firm (having as a gent) and the name neys or agents. If opinted, e) atent. If an assignassignment. | members of up no nam | er a 2er a 2er a 2er a 3er a 2er a 2 | ocument has been filed for |
| Please check the appropri | iate assignee category or | r categories | (will not be p | orinted on the patent): | | Individual 🚨 Co | rporati | on or other private gro | oup entity 🚨 Government |
| ia. The following fee(s) are submitted: Issue Fee A check is enclosed. Payment of Fee(s): (Please first reuply any previously paid issue fee shown above) A check is enclosed. Payment by credit card. From PTO-2038 is attached. Payment by credit card. From PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overspayment, to Deposit Account Number Cenclose are extra copy of this form). | | | | | | | | | |
| | s SMALL ENTITY state | us. See 37 C | | | | | | TTY status. Sec 37 Cl | |
| NOTE: The Issue Fee and interest as shown by the r | d Publication Fee (if req records of the United Sta | uired) will i ites Patent a | not be accepte and Trademar | ed from anyone other t k Office. | han th | ne applicant; a regi | stered a | ttorney or agent; or th | ne assignee or other party in |
| Authorized Signature | | | | | | Date | | | |
| Typed or printed name | | | | | | Registration N | | | |
| This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DC 13-1450. | CFR 1.311. i U.S.C. 122 i USPTO. T rden, should D NOT SEN | The informati 2 and 37 CFR Time will var d be sent to the ND FEES OR | ion is required to obtain 1.14. This collection y depending upon the he Chief Information C COMPLETED FORM | n or n is est indiv Office IS TO | etain a benefit by the imated to take 12 r idual case. Any co r, U.S. Patent and THIS ADDRESS | he publ minutes mment: Tradem i. SENI | to which is to file (and to complete, including s on the amount of tit ark Office, U.S. Depa of TO: Commissioner | by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

PO Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 05/05/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | |
|-----------------|----------------|----------------------|---------------------|------------------|--|--|
| 10/642,760 | 08/19/2003 | Hideo Tsuchiya | 241713US2SRD 3731 | | | |
| 22850 | 590 05/05/2008 | | EXAMINER | | | |
| OBLON, SPIVA | K, MCCLELLAND | CHAWAN, SHEELA C | | | | |
| 1940 DUKE STR | | ART UNIT | PAPER NUMBER | | | |
| ALEXANDRIA, | VA 22314 | | 2624 | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 814 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 814 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/642,760 TSUCHIYA ET AL. Notice of Allowability Examiner Art Unit SHEELA C. CHAWAN 2624 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 6/19/07. 2. The allowed claim(s) is/are 1-8 and 16, Renumbered as 1-9. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some* c) ☐ None of the: a) 🔯 All 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s)

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)

1. | Notice of References Cited (PTO-892)

Paper No./Mail Date

of Biological Material

2. Notice of Draftperson's Patent Drawing Review (PTO-948)

4. T Examiner's Comment Regarding Requirement for Deposit

Information Disclosure Statements (PTO/SB/08).

5. Notice of Informal Patent Application

 Interview Summary (PTO-413), Paper No./Mail Date .

9. Other ____.
/Sheela C Chawan/
Primary Examiner, Art Unit 2624

7. T Examiner's Amendment/Comment

8. X Examiner's Statement of Reasons for Allowance

Application/Control Number: 10/642,760 Page 2

Art Unit: 2624

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on June 19, 2007 has been entered.

Claims 9-15 are cancel

Claims 1-8 and 16 are pending in the application.

Response to Arguments

 Applicant's arguments filed on June 19, 2007 have been fully considered and are persuasive see remarks on page 9, lines 4 - 7, with respect to claims 1-15 under 102(b) has been withdrawn and claims 1- 8, and 16 are now allowed.

Priority

 Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 8/19/03, 2/25/04,
 3/19/04 and 2/02/05, the information disclosure statement is being considered by the examiner.

Drawings

The Examiner has approved drawings filed on 8/19/03.

Application/Control Number: 10/642,760 Page 3

Art Unit: 2624

Reasons For Allowance

6. The following is an examiner's statement of reasons for allowance:

Claims 1-8 and 16 are allowed and Renumbered as 1-9.

Applicant's arguments see page 9, lines 4 - 7, of the remarks filed on 1/9/08. The prior art Yoda et al., (JP 59-192943) disclose pattern inspection apparatus described in Yoda, comprises only a die- to-die comparator. More specifically, picture signals 810 obtained at a line sensor 10 are converted to digital signals 811 by an AD converter 11 and sent to a comparison circuit 13 and a delay circuit 12. The delay circuit 12 outputs signals S12 which will be input to the comparison circuit 13 together with the digital signals S 11 sent from the AD converter 11 in the same timing. The signals are then compared and the comparison result is judged by a defect determination circuit 14 to be sent to a defect data storage circuit 15. The defect data storage circuit 15 stores the position of a moving platform and the scanning coordinates "v" in the line sensor at this time. In addition, a computer 19 retrieves defect coordinates from the defect data storage circuit 15 for recording or displaying purposes. Thus it is clear that the pattern inspection of Yoda comprises only one comparator and the defect data storage circuit of Yoda is used for storing position data and not pattern data. Yoda reference fails to teach "a reference pattern data generator which generates reference pattern data corresponding to detected pattern data from designed data within the pattern inspection apparatus", as included in claim 1, the prior art of record fails to teach either singularly or in

Application/Control Number: 10/642,760 Page 4

Art Unit: 2624

combination, fails to anticipate or render the above limitations obvious. Claims 1-8 and 16 have been withdrawn from the rejection and are allowed.

7. Any comments considered necessary by applicant must be submitted on later than the payment of the issue fee and to avoid processing delays should preferably accompany the issue fee. Such submissions should be clearly labeled comments on statement of reasons for allowance. Art Unit: 2624

Contact Information

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sheela C Chawan/

4/19/08

Primary Examiner, Art Unit 2624